WRITTEN STATEMENT OF

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Good morning Chairman Markey, Representative Upton and members of the subcommittee. Thank you for holding this hearing and for giving Shell the opportunity to testify on the vital role of offsets in a cap and trade program.

The subcommittee's biweekly hearings are very timely as a new Congress and Administration work to create an economy-wide cap and trade system that achieves aggressive emission reduction targets. During these difficult times, it is particularly important to achieve environmental targets while minimizing the impact on our economy and consumers. Quality offsets that are permanent and can be measured, verified and reported can play a key role in managing the cost of a climate program while helping to achieve environmental goals.

During my testimony today, I will focus on the following points:

1) The role domestic and international offset credits can play in reducing the cost of compliance with a U.S. cap-and-trade program to reduce greenhouse gas emissions.

2) How the availability of offset credits figures into Shell's business planning and compliance strategy.

3) The relationship between the stringency of the targets and timetables for greenhouse gas emission reductions and the nature and scope of any offsets program.

4) The specific recommendations of the U.S. Climate Action Partnership with regard to the use of offset credits under U.S. climate legislation.

5) How can we ensure the integrity and effectiveness of any offset program included in U.S. climate legislation.

About Shell

Before I begin, I would like to provide a little background about the Royal Dutch Shell companies ("Shell"). We are an integrated oil and gas group of companies dedicated to meeting ever-growing energy demand efficiently and responsibly. We put safety, sustainability, the global search for viable new energy sources and innovative technologies at the heart of how we do business.

In addition to the oil and gas business, we are a world leader in the hydrogen fuel market. Shell companies have 832 megawatts of wind capacity worldwide and are committed to

be leader in the commercialization of second-generation cellulosic ethanol. Shell is helping to lead developments in carbon capture and storage through a variety of research and demonstration projects in North America and around the world.

Shell's environmental products trading business manages Shell's own compliance and services customer requirements in over 10 environmental markets around the world. The markets in which Shell trades include: the EU greenhouse gas Emissions Trading Scheme (ETS); the Kyoto Protocol's Clean Development Mechanism; the UK Emissions Trading Scheme; the Dutch NOx ETS; the Swedish Elcerts System; the US EPA Acid Rain Program (Title IV of the 1990 Clean Air) SO2 Emission Allowance market; the US EPA expansion of the Eastern States Ozone Transport Commission NOx trading program under State Implementation Plans (SIPs); the Houston/Galveston Area (HGA) NOx Emission Allowance Program; the California South Coast Air Quality Management District (SCAQMD) Regional Clean Air Incentives Market (RECLAIM) for NOx; the Alberta Specified Gas Emitters Regulation greenhouse gas program; the Regional Greenhouse Gas Initiative; and many of the renewable energy and Renewable Energy Certificate (REC) markets created by state Renewable Portfolio Standards.

Shell was the first company to transact EU allowances under the EU ETS, and the first company to trade a futures contract on a US federal compliance instrument on the Chicago Climate Futures Exchange. We are also currently preparing to participate in the forthcoming Australian Carbon Pollution Reduction Scheme and the New Zealand ETS.

Shell is also a member of the U.S. Climate Action Partnership, a coalition of corporations and environmental NGOs formed three years ago to work with Congress and the President to enact a climate policy centered around a cap and trade program. We believe such a policy must be environmentally effective at the lowest possible cost to the economy. It must be fair, market-based and encourage the development of key technologies.

Shell is proud to be a member of USCAP. We worked hard alongside its 30 other members to craft the Blueprint for Legislative Action. We are proud of the result.

USCAP was pleased to testify before the full Energy and Commerce Committee the day we rolled out our Blueprint for Legislative Action. The organization has worked tirelessly in the six weeks since the roll out to meet with Members of Congress, leadership, committees and staff on both sides of the Hill and familiarize you with the Blueprint.

I am particularly pleased to have this opportunity today on behalf of Shell to discuss USCAP's specific recommendations regarding offsets.

The Role of Offsets in Reducing Cost Compliance

Given today's economic challenges, it is critical that we ensure a smooth transition to a low-carbon economy at the lowest possible cost. Shell and USCAP support a cap and

trade program that covers large sources, transportation and natural gas used by consumers. This represents about 80% of emissions. The use of offsets from non-covered domestic and international sources is critical to making that transition at lowest cost.

A cap and trade program moves to reduce emissions by limiting the number of available allowances year after year. We believe that a range of approaches for managing supply and demand within a cap and trade system is essential to contain price volatility and ensure a deep and liquid market. Access to a quality offset market, along with banking and limited short-term borrowing of allowances, is an integral part of a cap-and-trade system.

Quality offsets from reforestation, recovery of landfill gas, advanced farming techniques and other areas are available both domestically and internationally at reasonable prices. The use of them will allow aggressive environmental targets to be met at a more reasonable cost while allowing time for the complementary measures proposed by USCAP to drive the development and implementation of the new technologies the world will need.

The key concern should not be the use of offsets, but, rather, ensuring that the offsets are quality offsets. They must be measurable, verifiable, permanent and enforceable. Such quality offsets help drive any climate program to its environmental goals. Since the total accumulation of GHGs determines the climate impact, reducing a ton of emissions from one source has the same climate impact as reducing a ton of emissions from any other source. The interchangeability of emission reductions in a cap-and-trade system helps manage costs since the cheapest reductions are likely to be made first.

Carbon Reductions in Developing Countries

Quality offsets are an excellent tool for CO2 reductions in developing countries. We know it could be many years (if ever) before cap-and-trade covers all of the economy in all parts of the world, yet we still need to introduce emissions reduction into those sectors and countries not immediately covered. Quality offsets are a way to do this.

It s also important to focus on the type of offsets we want. To do this it is necessary to think about a tool used in emissions management called an “abatement curve”. This is a graph that plots the cost of emissions reduction on one axis versus the potential quantity of reduction at a particular cost on the other axis. An abatement curve will cover all options from home insulation (on the very low-cost end of the curve) right through to carbon capture and storage (at the high-cost end of the curve). The point of the cap-and-trade system is to deliver a carbon price that activates the projects along the curve.
The point of the offset market is to broaden the volume and range of projects available at some point on the curve, both to offer compliance flexibility within the cap but also to introduce the notion of a carbon cost to those outside the cap, both domestically and internationally.

Certain offsets can actually be the start of a decarbonization trend in countries not immediately covered by a cap of their own. This allows such countries the opportunity to begin to manage emissions in their own economy, eventually bringing them forward the point at which they too can adopt targets.

In addition to reducing CO2 in the atmosphere, quality offsets can bring a range of other environmental benefits including improving habitat, water quality and biodiversity at the site where the offsets are created.

Offset Credits and Shell's Compliance Strategy

Shell's compliance strategy on a U.S. cap and trade program will likely consist of the following:

- A program within our facilities to determine the range of abatement opportunities available and their cost.
- Our trading business will work with project developers to establish a flow of offsets into the market.
- A development program that will allow Shell to implement technologies such as carbon capture and storage as the technology matures and the market dictates its need.

These three components are necessary to manage emissions, manage cost, provide opportunity and ensure compliance, not just today but over the years to come. Removing any one of them limits the flexibility that a large entity such as Shell has at its disposal and ultimately drives up our long-term cost of compliance.

Targets/Timetables and Scope of the Offset Program

To the issue of targets/timetables and the availability of offsets, USCAP noted in its Blueprint for Legislative Action that economic modeling and experience in other markets suggest that the more rapid the decrease in allowed emissions the higher the cost of compliance.

A simple example of the role offsets can play in reducing costs is as follows: Let's say the marginal reduction cost without offsets in an aggressive schedule could require a company to replace its diesel engines with natural gas driven engines at a cost of $50/ton, potentially impacting the cost of its products. If 20% of the reduction target is met using offsets, however, that company might reach the other 80 % of the target by upgrading the diesel engine to improve its efficiency at a cost of $20/ton.

The use of offsets can allow a company to phase-in capital stock turn-over in a more cost efficient way. For example, companies could use offsets to achieve environmental goals until costly new technologies mature and become more affordable.

USCAP recommends generous limits on the use of offsets to help moderate the compliance costs as the economy drives to the more stringent emission targets many, including Shell and USCAP, now believe are necessary to address climate change.

The scope of the offset program must be broad in order to reach as many sources of emissions not captured by a cap and trade program as possible.

An offset program with the appropriate scope can also encourage commercialization and international deployment of advanced technologies necessary to achieving needed GHG reductions in future years. There is considerable discussion in the international community right now regarding whether carbon capture and storage should be a recognized offset.

It is Shell's view that a ton of CO2 permanently stored at a CCS site is the equivalent of a ton of CO2 avoided and should get a full offset credit in any national and international scheme. Including technologies like CCS in an offset program incentivizes this vital technology. Including CCS in an international offset program helps encourage the deployment of CCS in developing countries like China, where the commercial deployment of this technology when it has matured can make a dramatic difference in this country's emissions.

USCAP Proposal

USCAP recommends that Congress set an upper limit on the use of offsets for compliance in any year at 1.5 billion tons of domestic and 1.5 billion tons of international offsets. Congress should specify that the initial annual limit on offsets be 2 billion tons.

USCAP's offset recommendations are integral to our support for the aggressive environmental targets referenced in the Blueprint. USCAP and Shell believe the targets are achievable at manageable costs to the economy provided that the offsets and other cost containment measures we recommend at enacted.

Congress should establish a Carbon Market Board and give it authority to set annual limits on the level of domestic and international offsets within the 2-3 billion ton range. The CMB should have the authority to increase the annual limit to avoid undue economic harm from excessively high allowance prices and/or increases in the price of natural gas due to fuel switching, and encourage technology transformation, including the development of carbon capture and storage.

In exercising this authority, CMB should take into account the number of banked offsets in the private sector, the degree to which the criteria for offset quality described have been effectively implemented by EPA, and the size of the strategic reserve pool.

The annual limits on offsets should be implemented in a manner that ensures easy and efficient access to offsets by all covered firms while providing flexibility and limiting the potential for speculation.

Even with ample offsets, there will still be the potential for extreme volatility and spikes in allowances prices. To limit such price spikes and volatility, especially in the early years of the program, USCAP recommends the establishment of a strategic reserve pool that includes: a) program-based and other governmentally certified offsets, including but not limited to forest carbon tons derived from offsets due to avoided tropical deforestation; and b) allowances borrowed from future compliance periods.

Offsets and/or allowances in the strategic reserve pool would be released into the market when allowance prices reach a specific threshold price. The reserve pool auction threshold price should be set at a level that prevents undue economic harm from excessively high allowance prices and/or increases in the price of natural gas due to fuel switching, and encourages technology transformation, including the development of carbon capture and storage.

Offsets released into the market from the reserve pool may be used without limitation and shall be in addition to the offset limit use recommended above. In order to achieve these objectives, the strategic reserve pool will need to contain a very large number of offsets and the CMB would need to have the authority to release them into the market on an as-needed basis. Thus, it is crucial that the reserve pool be very large and that the U.S. Government be empowered to fill it and replenish it as needed. We further recommend

- ✓ Congress should direct EPA to establish a program to certify forest carbon tons, using the criteria described above. These certified forest carbon tons may be held or traded by private entities at any time, and may be used for compliance purposes, without limitation, whenever the CMB-established threshold price for offset release from the strategic reserve has been reached.

- ✓ The allowance component of the reserve pool would utilize a limited number of allowances borrowed from future compliance periods but the CMB would only be authorized to use this mechanism as a measure of last resort if the reserve pool temporarily does not contain sufficient offsets to meet the cost containment need.

- ✓ Congress should charge the CMB with the responsibility to establish and update the reserve pool auction threshold price, determine the number of offsets to include in the reserve pool, and determine how many offsets and allowances need to be sold at or above the threshold price.

- ✓ To limit speculative purchases from the reserve pool and allow an increasingly strong price signal, the CMB should increase the threshold price at a rate that moderately exceeds the time value of money. .

- ✓ Finally, the system used to release offsets and allowance reserves into the market should be transparent and predictable, and designed in a manner that minimizes interference with normal market processes and prevents manipulation of the allowance price.

Quality of Offsets

Let me say at the outset, Shell recognizes the problems with the Clean Development Mechanism. We support reforming the current system. Shell strongly advocates rigorous standards for any national or international offset. We believe offsets must be of the highest quality. We advocate the use of third-party verification to assure the validity and quality of any offset.

One of Shell's leaders sits on the board of the Climate Action Reserve. We have worked closely with this organization in crafting its protocols for certifying offsets. We fully support CAR's protocols as an outstanding example of what a quality offset protocol looks like.

Additionally, the USCAP Blueprint provides rigorous guidelines for ensuring the quality of offsets. We believe criteria must be established to ensure all offsets are environmentally additional, verifiable, permanent, measurable, and enforceable.

USCAP recommends that EPA be directed to establish through a transparent process an offset program using a standards-based approach within 18 months of the enactment of climate legislation.

Under a standards-based approach, an EPA rule should identify specific categories of offsets that are eligible to qualify, along with clear procedures to achieve certification, and clear guidance to offset providers about how they can meet the standards.

The eligible categories of offsets should be added to or modified over time based on experience, and standards should be periodically updated to ensure environmental additionality.

In the case of international offsets, in addition to meeting the criteria described above, USCAP asks that EPA should be directed to establish a transparent process for evaluating and approving international offsets. EPA should enable international offsets that meet the quality criteria be approved during the early years of the program, with a schedule to assure that over time international offsets result in incremental reductions beyond a nationally appropriate country or sector-specific emission reduction commitment that covers a suitable share of a countries' emissions, consistent with the global goal of avoiding dangerous climate change.

Additionally, Shell would like to see the United States assertively involved in international climate negotiations. A strong presence in the international community

creates an opportunity for the United States to make the EPA standards the international standards for everyone, ensuring one international mechanism and addressing concerns with the current CDM. A single tradable international offset mechanism is an important precursor to a global carbon market, which will then deliver a lowest cost pathway to the needed global emission reductions. Thank you.